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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,289	09/22/2005	Toshihiro Fujiki	274767US6PCT	9544
22850 7590 06/25/2010 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER BIBBINS, LATANYA				
ART UNIT 2627		PAPER NUMBER		
NOTIFICATION DATE 06/25/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

### Office Action Summary

**Application No.**

10/550,289

**Applicant(s)**

FUJIKI, TOSHIHIRO

**Examiner**

LATANYA BIBBINS

**Art Unit**

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3 and 5-27 is/are pending in the application.
- 4a) Of the above claim(s) 9, 11-13, 18 and 24-27 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3, 5-8, 10 and 14-17 is/are allowed.
- 6) ☒ Claim(s) 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Non-Compliant Amendment (37 CFR 1.121)***

1. The amendment document filed on April 21, 2010 is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required:

The following item caused the amendment document to be non-compliant:

a. Amendments to the claims:

i. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified.

Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended). In this instance, the status identifier for **claim 27** is "previously presented" however the claim has been changed relative to the immediate prior version of the claims filed June 15, 2009. **Claim 27** should be provided with the "currently amended" status identifier.

A telephone call was made to Applicant's representative, Chris O'Brien, on June 16, 2010 to confirm that claim 27 should have the "currently amended" status identifier.

***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 21, 2010 has been entered.

3. In the remarks filed on April 21, 2010, Applicant amended claims 19 and 27 and submitted arguments for allowability of pending claims 1, 3 and 5-27.

***Election/Restrictions***

4. Applicant's election **without traverse** of the species corresponding to Figures 1-10 (claims 1, 3, 5-8, 10, 14, 15 and 19-23) in the reply filed on June 11, 2010 is acknowledged.

5. **Claims 9, 11-13, 18, 24-27** are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without traverse** in the reply filed on June 11, 2010.

***Response to Arguments***

6. Applicant's arguments filed April 21, 2010 have been fully considered but they are not persuasive.

**Regarding claims 19-23,** Applicant argues that the combination of Kobayashi and Miyamori fail to disclose "pits and lands or marks and spaces having lengths which are represented by integral multiples of a predetermined basic length, successively formed to record main information on said optical disc, said pits have lengths equal to or greater than a period of  $7T$ , where  $T$  represents a period of a data sequence of said main information, and said pits have widths that are locally reduced at a position that is a predetermined distance from an edge of the pit based on information recorded in a disc ID code, said information indicating a change in said pit width" as recited in claim 19.

Examiner respectfully disagrees. Claim 19 was amended to include the limitation "pits and lands or marks and spaces having lengths which are represented by integral multiples of a predetermined basic length, successively formed to record main information on said optical disc, said pits have lengths equal to or greater than a period of  $7T$ , where  $T$  represents a period of a data sequence of said main information, and said pits have widths that are locally reduced at a position that is a predetermined distance from an edge of the pit based on information recorded in a disc ID code, said information indicating a change in said pit width." However, as outlined in the 35 U.S.C. 103(a) rejection below the primary reference, Kobayashi et al. (US Patent No. 6,331,969), clearly teaches the limitations which Applicant alleges are neither disclosed nor suggested (see Figures 6A, 6B, 10A, column 4 lines 8-24, column 6 lines 19-33 and column 12 lines 59-65).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (US Patent Number 6,331,969 B1), herein Kobayashi '969, in view of Miyamori et al. (US Patent Number 6,025,946).**

Regarding claim 19, Kobayashi '969 discloses an optical disc comprising: pits and lands or marks and spaces having lengths which are represented by integral multiples of a predetermined basic length, successively formed to record main information on said optical disc (Figure 6A and the discussion in column 6 lines 19-26), said pits have lengths equal to or greater than a period of  $7T$ , where  $T$  represents a period of a data sequence of said main information (see the discussion in column 6 lines 19-33), and said pits have widths that are locally reduced at a position that is a predetermined distance from an edge of the pit based on information recorded in a disc ID code, said information indicating a change in said pit width (see Figures 6B and 10A, the discussion in column 6 lines 19-33 and the discussion in column 12 lines 59-65), wherein a sequence of data based on auxiliary information is modulated by a signal represented by a combination of a sequence of pseudo-random numbers (see Figure 3 particularly XOR element 24 and XOR input signals MS and SC1, the discussion in the abstract, the discussion in column 4 lines 8-24 regarding the disk identifying code SC1,

interpreted as the auxiliary information, and the discussion in column 4 line 66 – column 5 line 13), and recorded traces of said pits or said marks are changed depending on the modulated sequence of data, thereby recording said auxiliary information on said optical disc (see Figures 6B and 10A, the abstract, and the discussion in column 4 lines 8-24 regarding the disk identifying code SC1, column 5 lines 3-13 and column 6 lines 19-33).

Kobayashi '969 fails to disclose that the sequence of data based on auxiliary information is also modulated with a predetermined periodic signal. Miyamori, however, discloses a modulation circuit (Figure 5 element 16 and Figure 11) that modulates a sequence of data with a signal represented by a combination of a sequence of pseudo-random numbers and a predetermined periodic signal (see Figure 11 elements 22, 23 and 32-35 and the discussion in column 16 lines 1 to 67, note that a periodic signal from counter circuit 33 is modulated with a random number sequence from element 32 and the result is modulated with I and Q data).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the modulating scheme disclosed by Miyamori into the teachings of Kobayashi '969. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to reduce the regularity of the data (as suggested by Miyamori in column 16 lines 53-59).

**Regarding claim 20**, the combination of Kobayashi '969 and Miyamori further disclose the optical disc according to claim 19 wherein said recorded traces of said pits or said marks which have lengths equal to or greater than a predetermined length are

changed by changing a width of said pits or said marks at a time which is spaced a predetermined interval from a time corresponding to an edge of said pits or said marks (see Figures 6B and 10A, the discussion in column 6 lines 19-33 and the discussion in column 12 lines 59-65 of Kobayashi '969).

**Regarding claim 21**, the combination of Kobayashi '969 and Miyamori further disclose the optical disc according to claim 20 wherein said recorded traces of said pits or said marks are changed at a position corresponding to a period extending substantially equally over a time corresponding to the center of said pits or said marks (see Figure 10A, the discussion in column 12 lines 59-65 of Kobayashi '969 where the width of a pit is reduced at the center of each pit).

**Regarding claim 22**, the combination of Kobayashi '969 and Miyamori further disclose the optical disc according to claim 20 wherein the width of said pits or said marks is changed depending on the modulated sequence of data by at most 10% of an average width of said pits or said marks (column 5 lines 62-64 and column 10 lines 24-40 of Kobayashi '969).

**Regarding claim 23**, the combination of Kobayashi '969 and Miyamori further disclose the optical disc according to claim 19 wherein the sequence of data based on said auxiliary information comprises a sequence of identification data for identifying said optical disc (see the abstract and the discussion in column 4 lines 8-24 regarding the disk identifying code SC1 of Kobayashi '969).



***Allowable Subject Matter***

**9. Claims 1, 3, 5-8, 10 and 14-17** are allowed for the reasons indicated in the Office Action mailed December 21, 2009.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LATANYA BIBBINS whose telephone number is (571)270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LaTanya Bibbins/  
Examiner, Art Unit 2627